

## Atari 400 and Atari 800 Home Computers



The Atari 800 shown here consists of a 16KB RAM, cassette program recorder, 40-cps 4-inch roll printer, 5 1/4-inch 88KB mini-diskette drive, and a user-supplied color TV set or monitor. Programs can be loaded either via plug-in ROM cartridges, cassette tapes, or diskettes. The 800 is programmable in Basic or Assembly language.

### BACKGROUND INFORMATION

Atari Inc., Home Computer Division, a Warner Communications Company, 1312 Crossman, P.O. Box 61657, Sunnyvale, CA 94086. Telephone (408) 942-6500.

When Atari entered the home computer marketplace in 1979, it came as no great surprise to the industry. With revenues of about \$200 million per year and a highly successful track record in manufacturing and marketing high technology consumer electronic games, it was natural for Atari to turn its attention to personal computers.

Atari sells two home computers: the Atari 400 and Atari 800. The Atari 400 is a limited size (16K bytes), low-end system intended for home use. The Atari 800 has more RAM capacity and is capable of handling small business and professional applications, as well as sophisticated home processing applications.

In addition to relying on its strong distribution network, Atari stresses that a major selling point of the Atari 400 and Atari 800 systems is the use of plug-in ROM cartridges. These cartridges provide low-cost, easy-to-use program availability.

### SYSTEM CHARACTERISTICS

The Atari computers are compact units consisting of a keyboard chassis which holds the plug-in ROM and provides a serial I/O port for external peripherals and four controller jacks for joystick and paddle controllers. Four independent sound synthesizers are incorporated into the console to provide sound effects through a TV set.

Current models: Atari 400; Atari 800.

Memory: 16KB-48KB RAM.

Storage capacity: 88KB-352KB diskettes.

Workstations: one.

Base list price: Atari 400—\$299 including processor, 16KB RAM, keyboard, built-in RF modulator, internal speaker. Atari 800—\$899 including same as Atari 400 plus Basic cartridge, different keyboard, monitor jack.

Typical list prices: Atari 400 (student)—\$465 including same as base configuration plus educator kit, Atari 800—\$1,675 including processor 48KB RAM, disk drive, 80 column printer, interface module, cables. Popular options: from Atari—joystick, paddles, printers, diskette drive, add-on memory, modems, from independents—home controller, graphic I/O tablet, plotter.

Principal programming languages: Basic, Assembly, Pilot.

Principal applications software: home office, music, education, statistics, games.

First shipment: 1979.

Number installed to date: information not available.

Available through: about 2100 direct and indirect vendors, computer dealers and electronics specialty shops, Sears Roebuck and Penney's.

Each system contains an RF modulator which enables it to connect to any TV. Text is displayed in three modes and graphics in nine modes. The keyboard provides 57 alphanumeric keys plus four special function keys.

The differences between the two systems are as follows: 1) RAM capacity: 16K bytes on the Atari 400, 16K bytes expandable to 48K bytes on the Atari 800; 2) keyboard: monopanel, touch sensitive on the Atari 400, regular typewriter-style on the Atari 800; 3) a jack on the Atari 800 enabling the system to be used with a monitor instead of a TV if desired; 4) ROM cartridge slots: one on the Atari 400, two on the Atari 800.

The Atari 400 is capable of attaching game controls, a cassette recorder, and a 40-column printer as external peripherals in addition to a TV set display. An acoustic modem with an interface module is also available.

The Atari 800 can use all of the Atari controllers and peripherals as well as support all of the Atari 400's programs. Additionally, up to four 88K byte diskette drives can be attached to the Atari 800. The Atari 800 can utilize 40 or 100 cps printers, as well as support several software packages not available for the Atari 400.

Atari offers Starter Kits which contain all the materials needed to use the computer for entertainment, education, communications and programming. Additionally, two other kits, The Bookkeeper and The Home Manager, are available, but only for the Atari 800.

## Atari 400 and Atari 800 Home Computers

### HARDWARE/PACKAGING

#### PROCESSOR/MEMORY

Model: 6502; 8 bits  
RAM: Atari 400—16KB; Atari 800—16KB-48KB  
ROM: Atari 400—10KB internal, 2KB-16KB cartridge; Atari 800—10KB internal, 2KB-16KB cartridge  
Processor options: additional 8KB RAM (\$49.95); 16KB RAM (\$99.95)

#### DISPLAY

Model: color or B/W TV set (or monitor with Atari 800)  
Screen size: any size  
Chars./screen: 960 (40 chars. x 24 lines); 480 (20 chars. x 24 lines); 240 (20 chars. x 12 lines)  
Char. type: upper/lower case; 8 x 8 matrix  
Features: normal, inverse, pallet of 256 colors of which 128 may be displayed simultaneously  
Graphics: nine modes, from 40 x 24 up to 320 x 192  
Interface: integral cable plug; RF modulator included

#### KEYBOARD

Type: Atari 400—typewriter style, non-tactile, fixed; Atari 800—typewriter style, tactile, fixed; optional numeric keypad (\$124.95)  
No. of keys: 57, ASCII character set  
Interface: integral connection

#### DIRECT ACCESS STORAGE

Model: Atari 810 Disk Drive  
Type: 5¼" mini diskette  
Capacity/disk: 88KB  
Drives/system: 1-4  
Avg. access time: 74 milliseconds  
Transfer rate: 19.2KBS  
Interface: 1 port  
Price: \$599.95 with controller

#### PRINTERS

Model:	820	822	825
Type:	matrix, impact	matrix, thermal	matrix, impact
Paper:	plain paper, roll, 4"	thermal, roll, 4"	fanfold, tractor, 9.5" single sheets
Char. set:	96	96	96
Chars./line:	40	40	80
Speed:	40 cps	37 cps	100 cps
Interface:	serial	serial	Interface Module
Price:	\$299.95	\$299.95	\$799.95

#### DATA COMMUNICATIONS

Model: Atari 830 Acoustic Modem  
Trans. mode: half/full-duplex  
Protocol: asynchronous  
Lines: one  
Speed: 300 bps  
Interface: Interface module  
Price: \$199.95

#### OTHER I/O

Magnetic tape: Atari 410 Program Recorder, (\$99.95)  
Game controls: 2 handheld paddles (\$21.95); 2 joysticks (\$21.95)  
Loudspeaker: built-in; 4-channel audio channel through TV set  
Interface module: (\$219.95)

#### I/O ELECTRONICS

Structure: 4 controller input jacks; Atari 400—1 external and 1 internal cartridge slot; Atari 800—2 external and 3 internal

cartridge slots, 1 high speed serial I/O port, can connect Model 850 Interface Module to provide 4 RS-232 serial ports and 1 parallel port.

### SOFTWARE

#### LANGUAGES

Basic: Atari Basic (ROM cartridge—\$59.95; included with Atari 800); Microsoft Basic (diskette—\$89.95)  
Assembler: Assembler Editor (ROM cartridge—\$59.95); Macro Assembler and Program Text Editor (diskette—\$89.95)  
PILOT (with turtle graphics): home package (\$79.95); educator's package (\$129.95)

#### OPERATING SYSTEM

Name: Atari Operating System  
System requirements: 10KB ROM (included with system)  
Concurrent tasks: one  
Other functions: I/O device handling, keyboard and screen editing

#### UTILITIES

Sort: no  
Text editor: no

#### DATABASE MANAGEMENT SYSTEMS

Name: none specified

#### COMMUNICATIONS SUPPORT

Name: TeleLink I (\$29.95)  
System requirements: modem and interface module  
Functions: allows access to databases and communications with other type of computers

#### APPLICATIONS PROGRAMS

Accounting: The Bookkeeper (\$149.95)  
Education: Energy Czar, Hangman, Kingdom, States & Capitals, European Countries and Capitals, Invitation to Programming (\$24.95-\$29.95), Biorhythm (\$14.95), Conversational French, German, Spanish and Italian (\$59.95 each), Music Composer (\$59.95), Touch Typing (\$24.95)  
Entertainment: ROM cartridges (\$34.95-\$54.95); Basketball, Computer Chess, Star Raiders, Super Breakout, 3-D Tic-Tac-Toe, Video Easel, Space Invaders, Asteroids, Missile Command, Pac-Man, Centipede; Cassettes: Blackjack (\$14.95)  
Finance: Bond Analysis (\$24.95), Dow Jones Investment Evaluation (\$129.95), Graph It (\$19.95), Mortgage & Loan Analysis (\$19.95), Stock Analysis (\$24.95), Stock Charting (\$29.95)  
Math/Statistics: Statistics (\$19.95)  
Word Processing: Atari Word Processor (\$149.95)  
Others: Home Filing Manager (\$49.95)

### SUPPORT SERVICES

#### DOCUMENTATION

Range: about 14 manuals available (\$3.95 to \$29.95)

#### SUPPORT

Training & education: none from Atari; available at discretion of dealer  
Maintenance: available through more than 200 factory-authorized service centers

#### TERMS AND CONDITIONS

Lease terms: none  
Discounts: none officially; available at retail level; some dealers and mail-order houses will offer up to 15% off list  
Warranties: 90-days—parts and labor  
Software terms: none specified